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SEMINAR REPORT

SEMINAR ON HUMINT EVALUATION

CENTER FOR THE STUDY OF INTELLIGENCE

Central Intelligence Agency
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Review on 1 Oct. 1994

HUMINT EVALUATION SEMINAR

Summary

A group of 27 people from throughout the intelligence community met some months ago under the auspices of the Center for the Study of Intelligence to share information and ideas on methods being used in evaluating human source intelligence (HUMINT). The purpose was to broaden the awareness and understanding of current HUMINT evaluation activities and of their usefulness, and to identify additional techniques which might be applied to enhance their utility.

Two days of frank discussion by the group -- broadly representative of the views of HUMINT collection managers, intelligence and budget analysts, planners, production coordinators, consumers, and overseers -- led to the consensus that current HUMINT evaluation efforts vary in utility and tend to focus largely on the quality of reporting. It was felt that more emphasis should and could be placed on measuring the efficiency and effectiveness of HUMINT programs and of other intelligence functions as well. There was agreement on a number of recommendations that would increase the usefulness of current HUMINT evaluation efforts, and foster the application of better evaluation methods by HUMINT managers. It was also agreed that further inter-agency discussions of the subject could be fruitful.

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Conclusions

The competition for resources among intelligence programs has been heightened by the growing centralization of community management and budget activities, combined with stringent dollar ceilings in a period of inflation.

Sound decisions on resource allocations, including those affecting HUMINT programs, would be facilitated by the availability of data which measure the relative value or effectiveness of these programs.

CIA, DIA, and State have each developed HUMINT evaluation efforts designed to meet limited agency needs; each of these has merit, but they have been uncoordinated and there has been little sharing of experience or information on evaluation systems among agencies.

With few exceptions, current evaluation efforts focus on measuring the <u>quality</u> of the product, with little emphasis on measuring the <u>efficiency</u> of programs (i.e. comparing relationships between products and the resources expended in their production), or in measuring program <u>effectiveness</u> (i.e. comparing results against objectives, or comparing the value of results or effects of the program with the value of the resources expended).

Management techniques and systems are available which could be applied or adapted by intelligence community components to facilitate the development of more useful measures of the effectiveness of HUMINT programs than those now being employed.

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Recommendations

There should be established or designated a focal point in the intelligence community for fostering improved HUMINT evaluation activities. This function could be performed usefully in the HUMINT element of the Collection Tasking Staff.

This facilitating element could perform the following functions in support of community components:

+Develop and maintain an up-to-date data base on individual HUMINT evaluation efforts within the community, and track those activities on a continuing basis.

+Advise and assist community HUMINT components on evaluation methods, sponsoring workshops and seminars on the subject as appropriate.

+Sponsor and oversee a program of applied research on program evaluation techniques, to adapt state-of-the-art management evaluation methods to intelligence community needs. Such applied research activity could be coordinated with CIA's Office of Research and Development.

+Serve as a link with other community elements engaged in program evaluation activities (other than HUMINT), and with community elements concerned with management decisions on resource allocation.

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Community components, either independently or collectively in the context of a coordinated community effort, should consider experimenting with and testing techniques such as the following, with a view to improving the utility of present HUMINT evaluation efforts:

+Develop descriptive models of the HUMINT program being evaluated, including such details as flow charts, linear responsibility charts, and possibly simulation models, to facilitate analysis of the program.

+Analyze the program (or sub-system) to define its goals and objectives, identify the nature of the reporting requirement which the evaluation is to satisfy, and determine the appropriate kind and level of evaluation (i.e. quality, efficiency, or effectiveness), and identify points at which measurements should be made.

+Develop appropriate measures, define the attributes to be measured, and devise ways of collecting and presenting the data required to permit the measurement.

+Identify and document points where the product or results of the program have impact, and devise means for assessing that impact.

Individual efforts to improve HUMINT evaluation techniques should proceed on their own merit; those HUMINT evaluation

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activities which prove useful are likely to find a place within any overall community evaluation systems which may ultimately evolve.

Introduction

A particularly vexing problem for the intelligence community in this period of structural transition, budgetary constraint, and inflationary costs, is that of deciding among competing demands for increasingly scarce resources. The new focus on community approaches and the development of new institutional forms for establishing intelligence requirements and priorities, for tasking collection agencies, and for managing resources, have altered traditional budgetary concepts and procedures, and intensified the competition for resources. These conditions have created new interest in the question of how one measures the value of an intelligence activity -- how one determines whether the results of any part of the intelligence process are worth the resources devoted to it.

In one sense, at least, the concept of "evaluation" is inherent in the intelligence process, and a variety of approaches to evaluating the process and product of intelligence have been tried over the years. The intelligence analyst -- consciously or unconsciously, systematically or by intuition -- "evaluates" every piece of intelligence information that comes to his attention as he processes his "take." The agent handler or defense attache "evaluates" the information in determining what to include in his field report. Collectors are interested in establishing -- through feedback -- the relative quality of a specific report, or of a stream of

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reporting from a particular source. Collection managers and program analysts are concerned with the relative value or utility -- in both a quantitative and qualitative sense -- of a reporting unit or field station. Others are concerned with the proportional contribution of various kinds of collectors to finished intelligence products. Budget officers, resource managers, and legislators are concerned with the costs of various programs in relation to the benefits derived therefrom.

Techniques used in making these different kinds of evaluation range from intuition to sophisticated and complex computerized models. The latter are more commonly associated with technical collection systems, rather than with HUMINT collection. One group of CIA HUMINT collection managers has evolved a fairly comprehensive evaluation system based on consumer feedback, and wants to develop it further. They felt a need to share their experience with others, and to learn what others are doing in this area. Of particular concern to them was the problem of usefully measuring the impact of HUMINT reporting.

These concerns led to this seminar on HUMINT evaluation.

The purpose of the seminar was to permit a broadly representative group of persons concerned with the issue to exchange information on HUMINT evaluation as a process. The objective was to broaden the understanding of all participants concerning

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the procedures and methods being used in various agencies for evaluating HUMINT, and to arrive at an appreciation of the utility of these methods. It was also hoped that -- with the aid of an outside management consultant specializing in program assessment activities -- the group could explore the availability of other evaluation methods and techniques which might improve the quality of current evaluation efforts or permit the development of new systems.

To achieve these aims, the Center for the Study of Intelligence assembled a group with varying backgrounds, but sharing a common interest in evaluating HUMINT in one fashion or another. The composition of the group was such as to give some expression to the needs and concerns of legislators, policymakers, resource managers, budget officers, collection managers, intelligence analysts, and R&D managers. The agenda provided for:

- -- discussion of the evaluation interests and concerns of those present;
- -- briefings on HUMINT evaluation practices in the Operations Directorate of CIA, and in NFAC, State, and DIA;
- -- consideration of evaluation techniques used in other government agencies and in the business world, and discussion of how these might affect our needs; and
- -- a determination of further activities that could be undertaken as a follow-on to such a seminar.

General Discussion

The discussion opened with consideration of the broader challenge presented to the intelligence community by the Policy Review Committee on Intelligence (PRC/I) in terms of the need to institutionalize feedback to the guidance provided in the form of National Intelligence Topics (NITs). It was observed that some means must be developed to measure (evaluate) the community's responsiveness to the NITs, and that ultimately that response will have to be tied in some way to decisions on budget and resource allocations. It was acknowledged that we are a long way from being able to do that, but the view was offered that the community's progress in this area has thus far been sluggish, although DIA's KIR program is a step in the right direction.

The NITs came in for considerable discussion. While it was generally recognized that they provide useful guidance regarding the interests and needs of top policymakers, it was felt that they have limited utility in the context of program evaluation. The nature of the NIT "questions" precludes simple yes or no answers. The concept also poses problems concerning the adequacy of responses -- How much information is "enough"? How much of the information needed can be dealt with given the resources available? The consensus leaned toward the view that an effective evaluation system for intelligence activities required a more clearcut statement

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of objectives than was provided by the NITs. Objectives which would drive the kinds of performance evaluation the group felt were desirable needed to be more precise, definable, and quantifiable, and less open-ended than the NITs.

There was substantial discussion of the peculiar vulnerability of HUMINT in the competition for resources. The collection potential of technical systems is easily measured; hardware specifications can be designed to ensure the desired coverage capabilities; research and development programs are readily costed, and lead times between initial investment and operational availability can be determined with some reliability; performance of the system can be meaningfully measured in terms of target coverage. By contrast, HUMINT sources defy specific programming; long-term investment risks and costs are difficult to project and justify; target coverage cannot be predicted with confidence. Because HUMINT is a labor-intensive system -- as opposed to the capital-intensive technical systems -- HUMINT is harder hit in the near-term by spiraling manpower costs.

This vulnerability is most evident in questions raised by the recent cut in personnel of CIA's Operations Directorate. Congressional staffers asked what the impact of a cut of that size would be, in contrast to a cut of greater or lesser size. If 820, why not 1,020, or 620? What difference would a cut of different size make? This tied in again with the question

raised above -- in the intelligence business, how much is enough? When do we need more information, when do we have too much? How can this be measured?

This dilemma reflects the need for a means of evaluating the contribution of HUMINT to the intelligence process, and its impact on other programs which it affects, either directly or indirectly. It was agreed that if HUMINT managers could demonstrate the effect of a particular report -- or series of reports -- on U.S. military R&D programs, for example, or an trade negotiations, the problem of justifying resources for HUMINT would be more manageable.

There was disagreement on the extent to which this sort of impact analysis or evaluation could be carried. How does one evaluate the impact of a HUMINT report -- or any other intelligence product -- on policy decisions? Some believed that it was essential for the intelligence community to develop the capability to measure its impact on policy and that it would be feasible to do so. Others felt that the nature of the intelligence process precluded this; national security policies are not conducted on a profit-loss basis, and national objectives themselves are not defined in ways that facilitate objective measurement of success or failure in the conduct of national policy. Still others felt this issue of measuring impact on policy was imposing too rigorous a straitjacket

on the problem of intelligence evaluation; that intelligence was a matter of storing up knowledge, and that whether and how the policymaker used that knowledge was beyond the responsibility of the intelligence community. The tendency to view intelligence as a "production" process drew some criticism.

Analogies were drawn to the military services, and to the forest service. These elements are budgeted to establish capabilities for performing services (fighting wars, or extinguishing forest fires), and are evaluated in "peacetime" not in terms of how well they fight wars or put out fires, but in terms of their readiness to perform the tasks for which they are maintained. Those interested in justifying resource expenditures can take credit for indirect benefits or sideeffects, such as airlift of refugees, or favorable fireprevention results, but these services are not expected to justify every dollar spent on resources if they are not called upon to perform the role for which they are established. felt these factors are relevant, to some extent, to the intelligence community, in terms of long-term investment in collection resources which are not expected to produce results today, and of maintenance of capabilities for covert action, which may not be employed to their full capacity.

The majority seemed to feel that it may be both feasible and appropriate for the intelligence community to demonstrate

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its impact on U.S. Government programs and policies in specific instances. Although it might not be possible to account in this fashion for every dollar spent on intelligence activities -- and specifically on HUMINT -- it should be possible to account for a more significant portion of intelligence expenditures than has hitherto been the case. This turned the discussion to consideration of HUMINT evaluation efforts currently under way.

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Current Evaluation Efforts -- Resources Management Staff

Charged with responsibility for preparation of the intelligence community budget, the Resources Management Staff has established program evaluation as an essential part of its operation. An indirect technique is employed whereby RM personnel draw evaluations from program operators. The points of concentration are upon program success or failure, and possible duplication of effort. The procedure is designed to relate resource consumption to results in support of budget proposals. While dependent largely on the cooperation of those responsible for management of programs, both "carrot and stick" incentives are available to attain the level of candor and detail required.

To date, evaluation of human source reporting has been indirect and limited in depth. In comparative resource requirement terms, human source reporting has not been viewed as a major expense. Overall it represents about 8 to 9 percent of the budget while providing source material for 70 percent of the daily "Morning Report" of INR.

More and better evaluation by the various components collecting human source intelligence would benefit significantly the work of the RM staff.

CIA--Operations Directorate Evaluation of Field Reporting

The Evaluation Staff of the Operations Directorate (DO) comprises a Foreign Intelligence and Records Unit. A total team of 10 persons, of whom only 3 are full time, is used. The principal technique is that of direct interviews with users of clandestine and domestic collection reporting. Upwards of 500 consumers of the reporting are interviewed quarterly, each of the 10 staff members averaging calls upon 50 people apiece.

This procedure provides a continuous flow of evaluative judgments on quality and usefulness of these reporting elements. The results clearly are effective in program management and budget qualification terms.

The complete DO evaluation process begins in the field, where the initial decision to transmit a report is an evaluative judgment. This judgment in turn is based, at least partially, on guidance from Washington, which in itself may have been derived from evaluation of earlier reporting and perceived needs. The link between evaluation and guidance is solid, and each tends to strengthen the other.

Reports are graded under two distinct systems in the DO.

Regional divisions grade their own for quality control reasons.

At the central management level, other grading criteria are applied,

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Central management places more stress on the user interview results in its drive to maintain usefulness.

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An electronic data processing system and program provides report listings by month. These are the raw material sources for the interviewers, who are able to break out report topics to match the established areas of interest for each interview. In this manner each official interviewed is rendering judgments within his area of expertise.

While this technique does not provide direct cost-benefit ratios, it does allow determinations of the usefulness of reporting effort or of resources. The synthesis of views prepared each quarter by the DO Evaluations Staff can benefit the guidance procedure.

An effort to evaluate the hard value or dollar impact of human source reporting provided examples from the military technical scene. Cases were cited where reporting led to program changes or cost reductions in weapons design or procurement. This evaluation effort will receive increased attention as it is capable of developing easily demonstrable evidence of major benefit.*

State Department--Evaluation of Embassy Reportings

From mid-1976 through mid-1978 the management level at the Department of State sponsored the development and operation of a system to evaluate the quality of substantive reporting from Foreign Service Posts. Evaluations were begun on 48 posts, with 15 carried completely through the six-step procedure.

*A more detailed description of this assessment program was published in Studies in Intelligence,

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Recognizing the characteristics of the high-volume, voluntary or largely post-initiated nature of Foreign Service reporting, the evaluators worked with a year's samples of telegraphic reporting for each post. It was determined statistically that for posts transmitting 1,000 or more messages per year, a 500 item sample would provide a 95 percent confidence level of being representative of the total. All non-substantive messages were eliminated from the sample, leaving usually a range of 40 to 70 messages to evaluate.

Evaluation of five attributes--source, organization, analytical content, relevance and usefulness--was performed by panels of six experienced Foreign Service Officers, three economic and three of political background. The message sample separated economic and political material, which was read and scored for each attribute by the appropriate panelists.

Scoring results were used as guides to discussions with State officers of the country office responsible for the particular posts. Following these reviews, questions were formulated for inspection teams enroute to the post. Following a debriefing of the inspectors on their return, a memorandum was drafted and reviewed with the country office. Thereafter, a final memorandum was addressed to the Chief of Mission of the post, and the Assistant Secretary in charge of the geographic bureau.

This evaluation procedure was lengthy and cautious. inexpensive in use of resources, and of limited success. showed that such a system can provide worthwhile results. It sharpened interest in the subject of reporting evaluation per se, and the particular attributes upon which it focused. Its principal achievement was realization in State of the need for improved guidance to Foreign Service posts by their country offices, leading to the recent adoption of the "reporting plan" system. The evaluation system failed to establish a link between reporting quality or usefulness and the use of resources in a manner helpful to State management, and the program was moribund in late 1978.

DIA--Field Report Evaluation

Several forms of information, report or collector evaluation are utilized by DIA. Of principal interest to the seminar is the effort devoted to field report evaluation as opposed to the extensive efforts employed in DIA output or production evaluation (see below).

A sampling system based on an EDP storage system has

can be manipulated by source to help the collector determine the value and reliability of a source; by geographic area,

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to ensure reasonable coverage of posts; and by product, to examine the extent of source material available to meet a pre-determined need.

The IR sampling system provides a useful check on overall quality. It does not allow complete topical or subject evaluation, but does assist the development of guidance to the field. It appears to be of primary interest to the producers of finished intelligence products--intelligence summaries, estimates, etc.

DIA participants suggested that to evaluate in terms of effectiveness would require comparisons of finished products derived from human source intelligence or reporting against their contribution toward stated goals, such as preparation of national estimates, military capability studies, daily or periodic reviews. The results of such comparisons could influence decisions affecting resource allocation.

DIA--Other Evaluation Programs

As a consumer/user of human source information, DIA evaluates field reports of other agencies, passing the results to the supplying organization, primarily to CIA's Operations Directorate.

Direct performance evaluation is applied to the Defense Attache system through periodic review of the output of a limited number of attache posts by the DIA Director. This is a composite evaluation system incorporating the views of

DIA users of attache output. Guidance provided the Defense Attaches is based on the results of this performance evaluation.

Similarly, through participation in the National Intelligence Tasking Office evaluations, DIA has been able to reflect its views of needs on issues or topics affecting the full range of collection systems, derived from its own surveys and evaluation of information received or available.

DIA--Production Evaluation

DIA is interested in the development of an evaluation system that would cover all aspects of the flow of information from the input of raw material through the output of disseminated final product.

Through an established program, DIA periodically solicits consumer evaluations of recurring products in an effort to gain a comparative view and spot developing trends. In addition, it asks each DOD general intelligence production organization to conduct surveys of its own output for internal guidance and for the use of DIA's Project Management Office.

In order to better anticipate or meet the needs of its wide range of consumers, DIA is developing a record of all evaluation efforts, including the office conducting the survey, the purpose, questions posed, and the sample population. It is expected that this record will improve the tailoring of products to meet the needs of individual

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consumers and facilitate monitoring changes in the consumer judgments about product utility.

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Assessment of Community Efforts	
Seminar consultant on evaluation metho-	
dology, picked up on the brief description that was given of	
the forthcoming National HUMINT Tasking System. He saw the	
tasking of HUMINT collectors with national requirements under	
this system as probably helpful in better defining their objec-	
tives against the goals represented by broad, all-source National	
Intelligence Topics. such definition would	25X
help in improving the HUMINT reporting evaluation systems des-	
cribed by the participants. He characterized all of these	
systems, however, as being too low in the general hierarchy of	
possible evaluation systems. He saw almost exclusive focus	
in the CIA, DIA and State Department systems upon quality	
measurement, as opposed to that which OMB has clearly been	
calling for in the way of efficiency and effectiveness assess-	
ment. Passing out copies of extracts from certain 1978 OMB	
publications,drew the group's attention particularly	
to the following passages pertaining to the zero-base budgeting	

"Meaningful objectives should be established for each decision unit. Major objectives should be explicit statements of intended output clearly relative to the mission of the program or organization."

process:

"The expected results of work performed or services provided should be identified to the maximum extent possible through the use of quantitative measures."

"The assessment of alternatives should be based on the relative effectiveness and efficiency of each alternative in accomplishing major objectives."

"To the extent possible, using specific measures of accomplishment, workload, effectiveness and efficiency, describe the recent progress of the decision unit in achieving its objectives. The key indicators by which outputs and achievements will be measured should be obtainable from existing evaluation systems... Indirect or proxy measures should be used only while evaluation and work measurement systems are being developed."*

evaluation systems, went on to equate evaluation with assessment and to lay out a model (Attachment A). He related it to HUMINT, and used the model to focus the discussion on the types of evaluation of HUMINT called for by OMB. He used the following terms in explanations:

*OMB Circular No. A-11 "Preparation and Submission of Budget Estimates." May 25, 1978. No. A-115. "Zero-base Budgeting." May 5, 1978.

Evaluation of Quality

This involves identifying the attributes that a HUMINT report has. The more objective the attributes, the more reliable any judgments as to quality. As the existence of quality is determined, so it is established that meaningful output has been produced. The more specific, measureable and quantifiable the attributes of the output (a HUMINT report) the more reliable its quality measurement.

Evaluation of Efficiency

This requires determination of the relationship between HUMINT output and the effort that went into its production. Establishing a productivity index relates any meaningful measure of output to any meaningful measure of input to it. Going beyond that, work measurement relates the human resources (hours, months, years) consumed in the production of output to the output itself. Determining unit-cost efficiency calls for relating the cost of all accountable and allocatable resources to a unit of output produced.

Evaluation of Effectiveness

This requires determination of the <u>results or effects</u> of HUMINT output and relating them to input. Results may be measured in terms of stated objectives or in the same value terms as the input. The former allows effectiveness

assessment to take place. The latter permits benefit-cost (or cost-benefit) analysis.

said he foresaw increasing pressures on the intelligence community from OMB and Congress to engage in both efficiency and effectiveness assessment of its HUMINT collection. Citing examples from the experience of other federal agencies in this regard, he made several key points:

Efficiency and effectiveness measurement both require relating output to input, but past output can be used convincingly to justify future input costs. There may be no requirement for making a direct correlation between certain output and certain input. It will likely be sufficient if it can be demonstrated that there is cause to believe that a relationship exists.

Moving beyond efficiency measurement to the assessment of cost effectiveness requires clear definition of output in terms of results achieved, but they do not need to carry a value.

Going the final step, to benefit-cost analysis, does require placement of a value upon output results, but it can be imputed value and does not require quantification beyond the use of "shadow prices."

explained "shadow prices" as an indication of the worth of output results. They should not be taken as

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a definitive and absolute measure, but rather as a dynamic working statement of the value or benefit of the results, as derived in three major areas:

Market Value - The price for the results as they might be incurred in market transactions.

Cost Reductions/Avoidances - The currently borne social, political, economic or military costs/expenditures that would be reduced or avoided by the results/effects (of HUMINT reporting).

<u>Indirect, Intangible Value</u> - Examples: independence, security, peace, cultural identity, quality of life, etc.

description of different levels in the hierarchy of evaluation systems facilitated discussion of increasing centralization in intelligence management. More emphasis upon quantification of response to objectives and the value of program results was seen to bring inevitably more need for improvement in evaluation methodology and techniques. Current, largely disjointed efforts in this regard would benefit from some coordination, according to unnecessary duplication of experimental effort could be reduced. He mentioned the potential benefits to all of a central repository of impact data that could be drawn upon for evaluation purposes, along with the results of applied research in intelligence evaluation. stressed the multitude of tools available for evaluation in general and the need simply to adapt these to the intelligence profession. He described the usefulness of linear responsibility

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charting in matching evaluation efforts to actual need for them and in identifying the kinds of impact that collection results are supposed to have, and are likely to have.

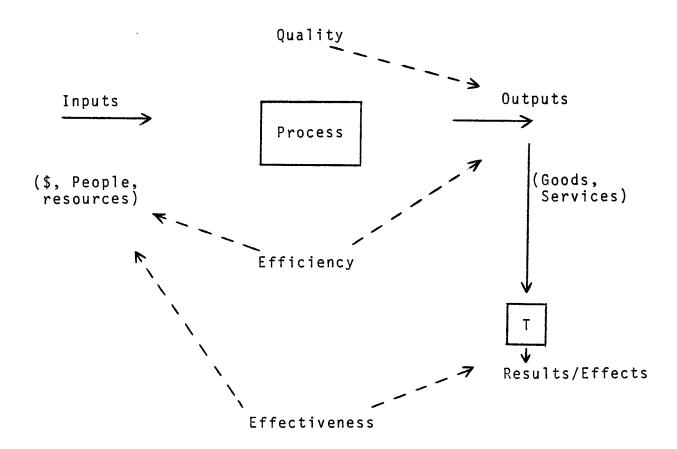
This led to a discussion of shortfalls in HUMINT reporting and the need to communicate this upward when it occurs.

Informalization or shortfall is the hallmark of a good system, according and the ability to demonstrate value tradeoff associated with various collection activities should be put to use with OMB. More frankness about that which simply cannot be done cost-effectively, with favorable benefit/cost ratio, would be consistent with the stretching of resources now going on in the face of rising demands for intelligence information.

An important step in better rationalization of resources is the development of reliable resources for moving beyond quality measurement to the assessment of efficiency and effectiveness in HUMINT reporting.

ANNEX "A"

ANNEX "A"



Quality

- Definition of Output
- Attributes of Output

Establishes that $\underline{\text{we have an output}}$ of at least minimally acceptable quality (vs. stated attributes).

Efficiency

- Work Measurement
- Unit Cost
- Productivity Index

Is a <u>relative measure</u> -- allows for <u>comparison</u> to standard, history, or other operation.

Effectiveness

- Cost Effectiveness
- Benefit-Cost

Both require "Proof" of outputs having a result or effect. Allows for evaluation of alternatives.

Objectives

Two Classes:

- MUST = absolute, limit
- WANTS = trade-off, range

Two Formats:

- Upper Bound
- Lower Bound

<u>General</u>

- Must be specific, measurable
- Usually in pairs-MUST & WANT
- Always a limit
- Needs focus-Input, Output,

Result

Relative Efficiency

WM:

UC:

PI:

Eff = Outputs/Inputs

Effectiveness

1st Definition

Effect. = Results/Objectives

2nd Definition

Effect. = Results/Resources

Note:

Use of the 1st Definition <u>presumes</u>
that the activity was effective from
2nd Definition viewpoint.

Cost Effectiveness

- Fixed-Cost, max. effect.
- Fixed-Effect., min. cost

Note:

- Both require a measure of effect.
- Assumes result or effect worth resources used.
- Needs "RCTB" outputs caused results.

Establishing Causal Link

- Ground Rules
 - Positive-constructive-competitive
 - = Scientific investigation
 - = "RCTB" vs. "Proof"

Some Approaches

Content Analysis

Records Search

Interviews, Questionnaires

Quasi-experimental:

- time series
- multiple time series

Non-experimental:

- before vs. after
- after only (comparison)

Benefit-Cost

- = Addresses "value" question are results worth resources expended?
- = Requires derivation of "shadow prices" (both resources and results).
- = An <u>approach</u> based on economic analysis and evaluation.

Shadow Prices

- Notational values for evaluation and analysis purposes.
- = Dynamic-situational and subjective.
- "Social" viewpoint=general national, social, public interest.
- = Areas of derivation:
 - -"Market"
 - -Cost reduction/avoidance
 - -Intangibles
- Positive-constructive-competitive viewpoint.
- = RCTB

